ABSTRACT OF DISCLOSURE

A self- Redundant Array of Inexpensive Disks (RAID) system using a hard disk drive having a backup head and a method of writing data to and reading data from the hard disk drive having the backup head are provided. A self-RAID (Redundant Array of Inexpensive Disks) system using a hard disk drive with at least one writable and readable disk medium includes a spindle motor, heads, an actuator arm, and a controller. The spindle motor rotates the disk medium. The heads face each other above and below the disk medium. The actuator arm drives the heads. The controller controls the heads to write data to and read data from the disk medium using a mode selection signal. The controller examines the mode selection signal, controls a first head which is referred to as a primary head and a second head which is referred to as a backup head to write the same data to and read the same data from the disk medium when the hard disk drive operates under a self-RAID mode, and controls the first head and the second head to write different data to and read different data from the disk medium when the hard disk drive operates under a normal mode.